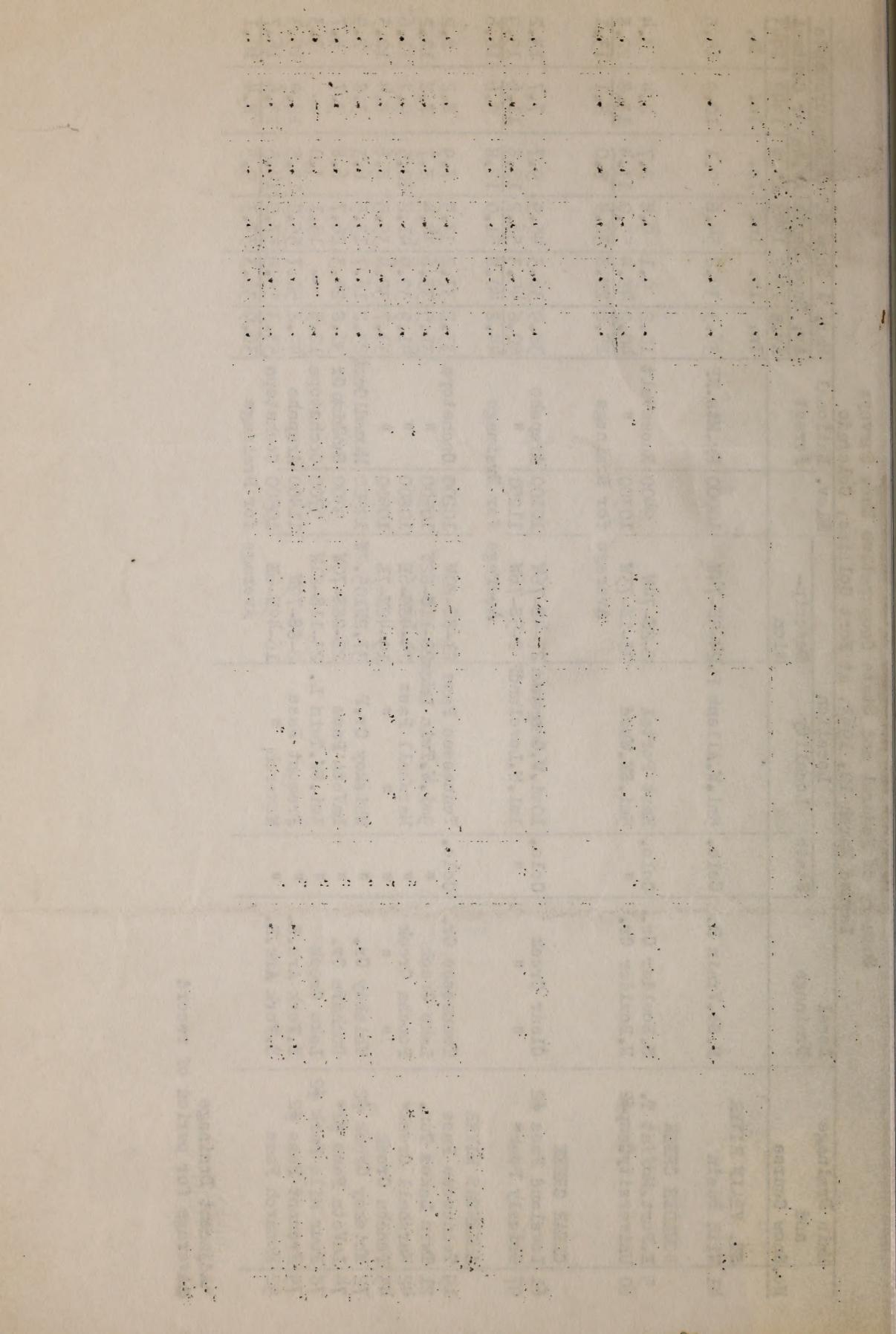


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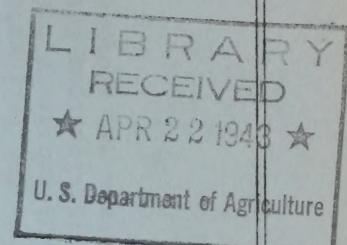
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for the

MISSOURI and ARKANSAS

DRAINAGE BASINS

April 1, 1943



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Issued by the
United States Department of Agriculture
Soil Conservation Service
Division of Irrigation
In Cooperation with
The Colorado Agricultural Experiment Station
Colorado State College
Fort Collins, Colorado

April 10, 1943

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**SNOW SURVEYS AND IRRIGATION WATER FORECASTS
FOR MISSOURI AND ARKANSAS RIVERS**

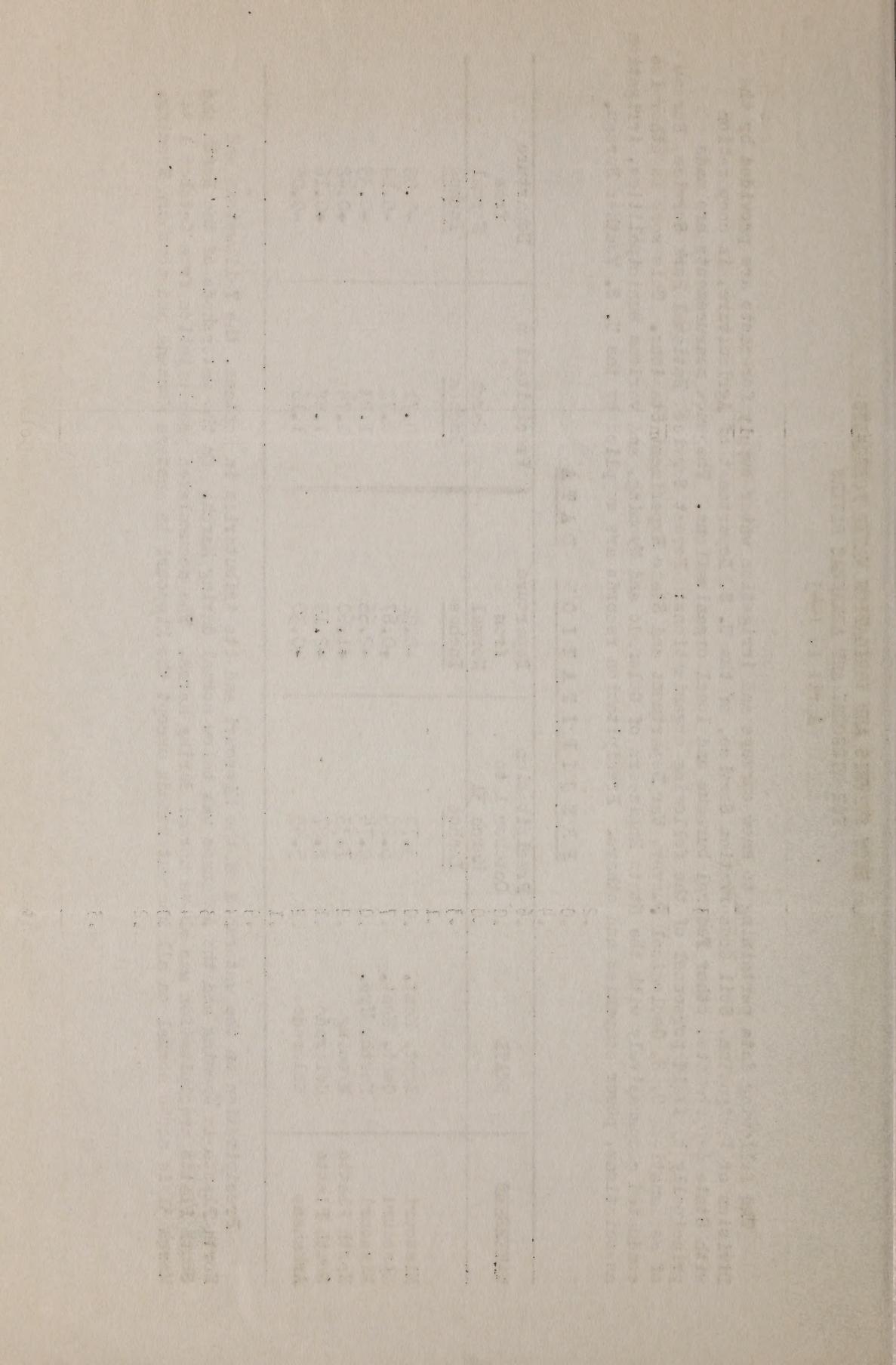
April 1, 1943

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Division of Irrigation, Soil Conservation Service, of the U. S. Department of Agriculture, in cooperation with State departments, other Federal bureaus and local organizations. The snow measurements are made principally by field personnel of the following organizations: Forest Service, National Park Service, Bureau of Reclamation, U. S. Geological Survey, War Department and State Experiment Stations. This work is otherwise conducted cooperatively with the State Engineers of Colorado and Wyoming, and various municipalities, irrigation associations, power companies and others. Precipitation records are supplied by the U. S. Weather Bureau.

PRECIPITATION DATA

WATERSHED	STATE	Precipitation October 1 to March 31	Departure from Normal		Precipitation March Inches	Departure from Normal Inches
			Inches	Inches		
Missouri	East. Mont.	3.70	-0.02	0.71	0.71	-0.08
Missouri	Cent. Mont.	5.29	+0.67	0.72	0.72	-0.14
Missouri	North. Wyo.	9.74	+2.66	1.23	1.23	-0.33
North Platte	Wyoming	7.53	+1.60	1.74	1.74	+0.42
South Platte	Colorado	8.87	+2.15	1.88	1.88	+0.16
Arkansas	Colorado	5.45	+0.30	1.16	1.16	-0.05

Precipitation on the watershed of the Missouri and its tributaries in Montana, the Yellowstone and North Platte in Wyoming and the Arkansas was below normal during March. On the watersheds of the North and South Platte precipitation was above normal during March. The accumulated precipitation from October 1 to March 31 is above normal on all the watersheds except the Missouri in eastern Montana and northern Wyoming.



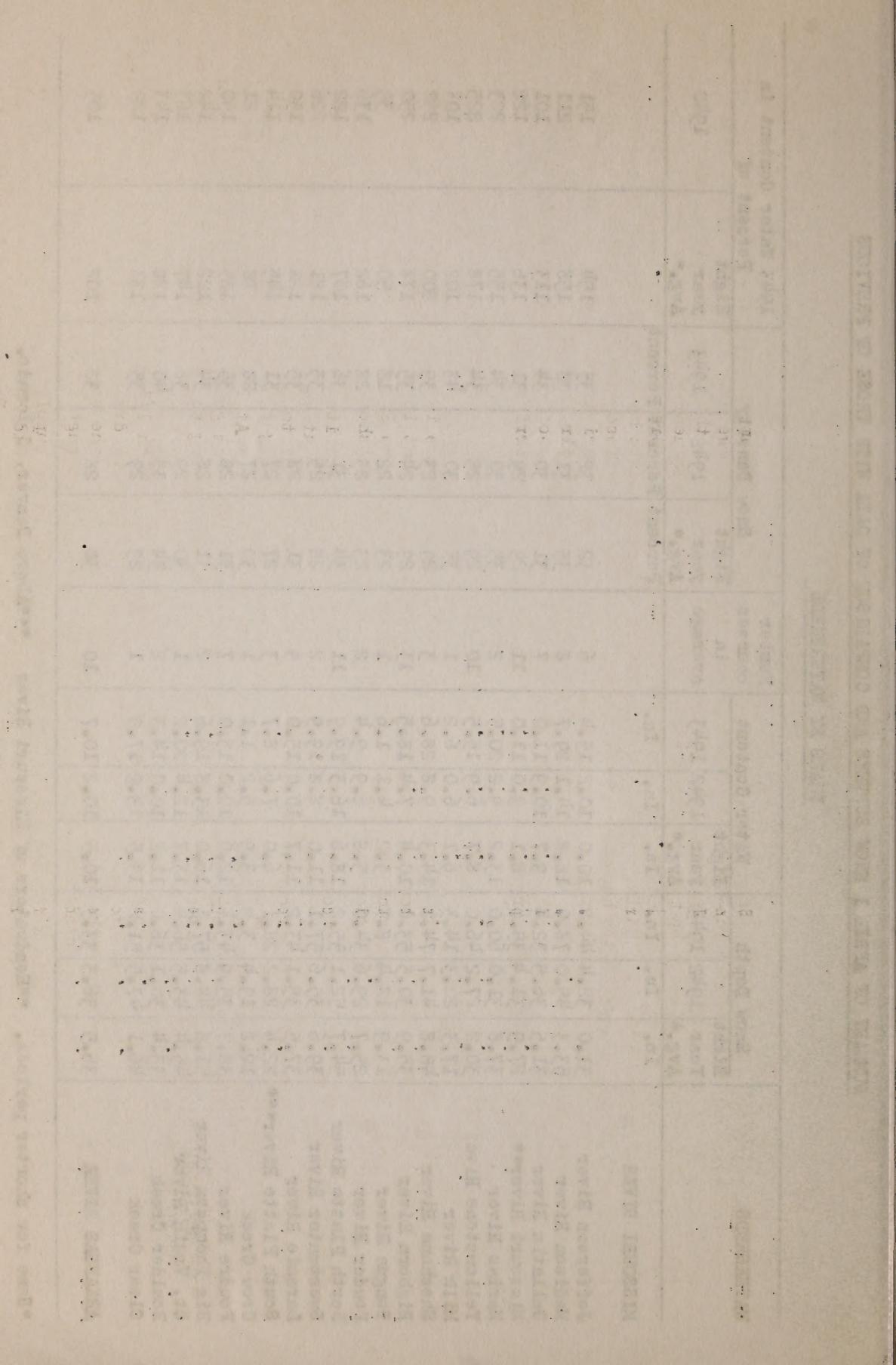
SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THOSE OF PREVIOUS

YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth						Water Content						Number courses in average						Snow Density						1943 Water Content in					
	Eight Year			1942			1943			Eight year Avg.*			1942			1943			Eight year Avg.*			1943			Eight year Avg.*			1942		
	In.	In.	Avg.*	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
MISSOURI RIVER	31.0	32.4	44.2	10.0	10.2	15.4	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Jefferson River	53.3	45.0	78.0	18.8	14.1	29.7	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Madison River	31.5	36.5	32.4	9.7	10.9	11.0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
Gallatin River	31.5	31.4	35.6	8.1	9.0	11.0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
Missouri River**	27.9	31.0	60.0	13.2	9.2	20.5	2	2	2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Marias River	37.8	31.0	27.2	46.0	8.7	6.9	5.5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Yellowstone River	30.2	20.3	14.3	6.1	6.0	6.2	1	1	1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	
Milk River	17.3	41.7	74.1	14.3	9.8	28.6	3	3	3	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
Shoshone River	48.8	35.9	30.5	53.0	10.4	7.4	18.5	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	
Bighorn River	13.9	18.4	8.7	3.2	4.1	1.6	1	1	1	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	
Tongue River	25.7	29.6	34.0	5.8	6.9	9.4	2	2	2	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	
Powder River	54.7	52.1	55.2	18.6	16.3	19.9	11	11	11	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	
North Platte River	39.6	35.6	57.1	11.0	8.8	19.9	2	2	2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
Sweetwater River	37.5	35.1	43.2	11.7	10.0	15.0	9	9	9	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
Laramie River	22.4	28.2	28.1	6.0	7.6	8.7	3	3	3	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	
South Platte River**	12.8	19.4	3.9	3.9	5.2	1.1	1	1	1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Crow Creek	38.3	35.9	43.4	12.0	10.0	15.0	7	7	7	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
Poudre River	51.8	48.8	57.3	16.0	13.8	19.6	2	2	2	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
Big Thompson River	45.4	43.5	56.4	13.7	12.4	20.2	1	1	1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
St. Vrain River	53.4	30.1	36.0	11.2	10.0	14.3	2	2	2	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	
Boulder Creek	46.1	47.5	51.2	13.5	13.9	17.9	1	1	1	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
Clear Creek	35.5	36.5	33.3	10.5	10.2	10.7	10	10	10	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
ARKANSAS RIVER	35.5	36.5	33.3	10.5	10.2	10.7	10	10	10	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	

*Some for shorter periods.

Headwaters of Missouri River *Above Denver, Colorado.



WATER SUPPLY OUTLOOK

MONTANA

MISSOURI RIVER AND TRIBUTARIES. Snow cover on the headwaters of these streams is much greater this year than formerly and above normal run-off is to be expected with sustained flows well into late summer. The water content of the snow on the Jefferson and Madison drainages is high at this time, especially the latter. At Lewis Lake Divide, on the Madison drainage, the snow now holds nearly 63 inches of water as compared with about 29 a year ago. For the headwaters of the Missouri the present water content is 25 percent above that of a year ago. The Marias and Yellowstone rivers are expected to be at high stage during the peak melting period and because of the heavy cover of snow on these drainages these streams will maintain a heavy flow throughout the summer months. Reservoir storage throughout the Missouri drainage area in Montana is for the most part well up to capacity. However, Flathead Lake, largest reservoir in this section of the state, now stores less than 10 percent of its capacity. The anticipated heavy run-off in practically all the tributaries of the Missouri will provide additional stored water for late irrigation.

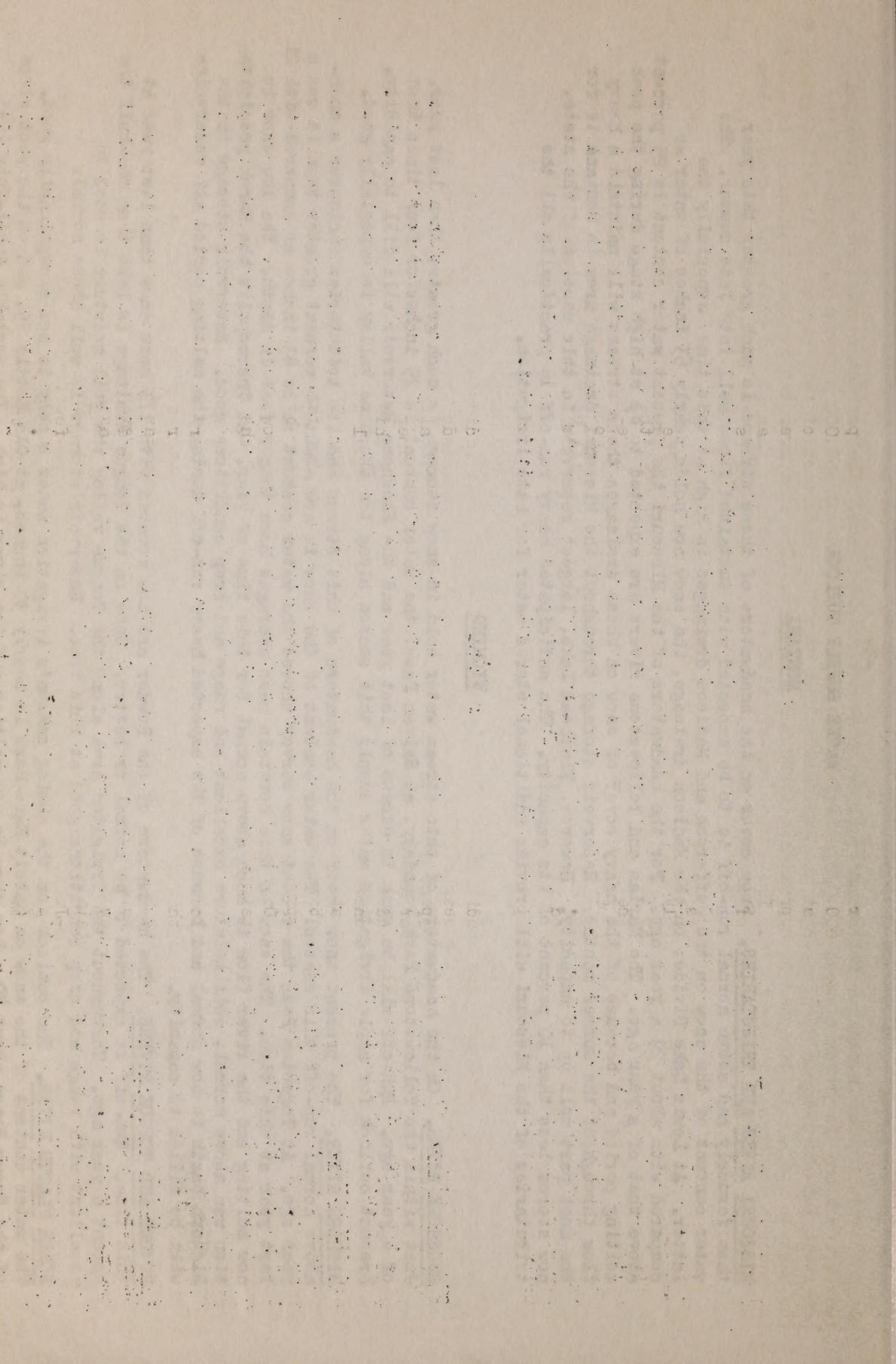
WYOMING

SHOSHONE RIVER. On the headwaters of this stream water held in snow storage is much greater than last year. Just within the Yellowstone Park boundary, at Sylvan Pass, the water content is 25 inches or four times that of a year ago. Run-off will be much in excess of last year and the Shoshone Reservoir will fill to capacity. Present outlook for ample irrigation water supply this season along the Shoshone valley is especially good.

BIGHORN RIVER. The present snow cover on the headwaters of this stream and its tributaries indicates a much-above normal run-off this season. The water content of the snow is now about 50 percent greater than it was a year ago. At Togwotee Pass the recent snow survey showed the water content to be 43 inches as compared with 21 last year at this time. The snow on this mountain pass averages more than 8 feet in depth. The low snow is now melting and the river flow is much above normal for this time of year. At Thermopolis the March precipitation was above normal, soil moisture excellent and range and crop conditions good. Reservoir storage in the Bighorn basin is now normal and because of the expected heavy run-off during the melting period all reservoirs will be filled to capacity.

POWDER AND TONGUE RIVERS. The headwaters of the Powder are now covered with 1/3 more snow than last year at this time. Run-off is expected to be normal or better. Snow on the Tongue drainage is less than one-half the amount a year ago. Throughout the irrigated area along the Tongue valley the soil moisture is good to excellent with range and crop conditions good at this time. Reservoir storage is well above normal.

NORTH PLATE RIVER. The outlook for the coming season's irrigation water supply is now exceptionally good. The water content of the snow on Rabbit Ears Pass is nearly 30 inches, at Old Battle 35, and on the west slope of the Snowy Range about 40. Low snow is now melting and the river is high. The probable April-July 1943 run-off at Saratoga will be 500,000 acre-feet or more. The March precipitation throughout the irrigated areas



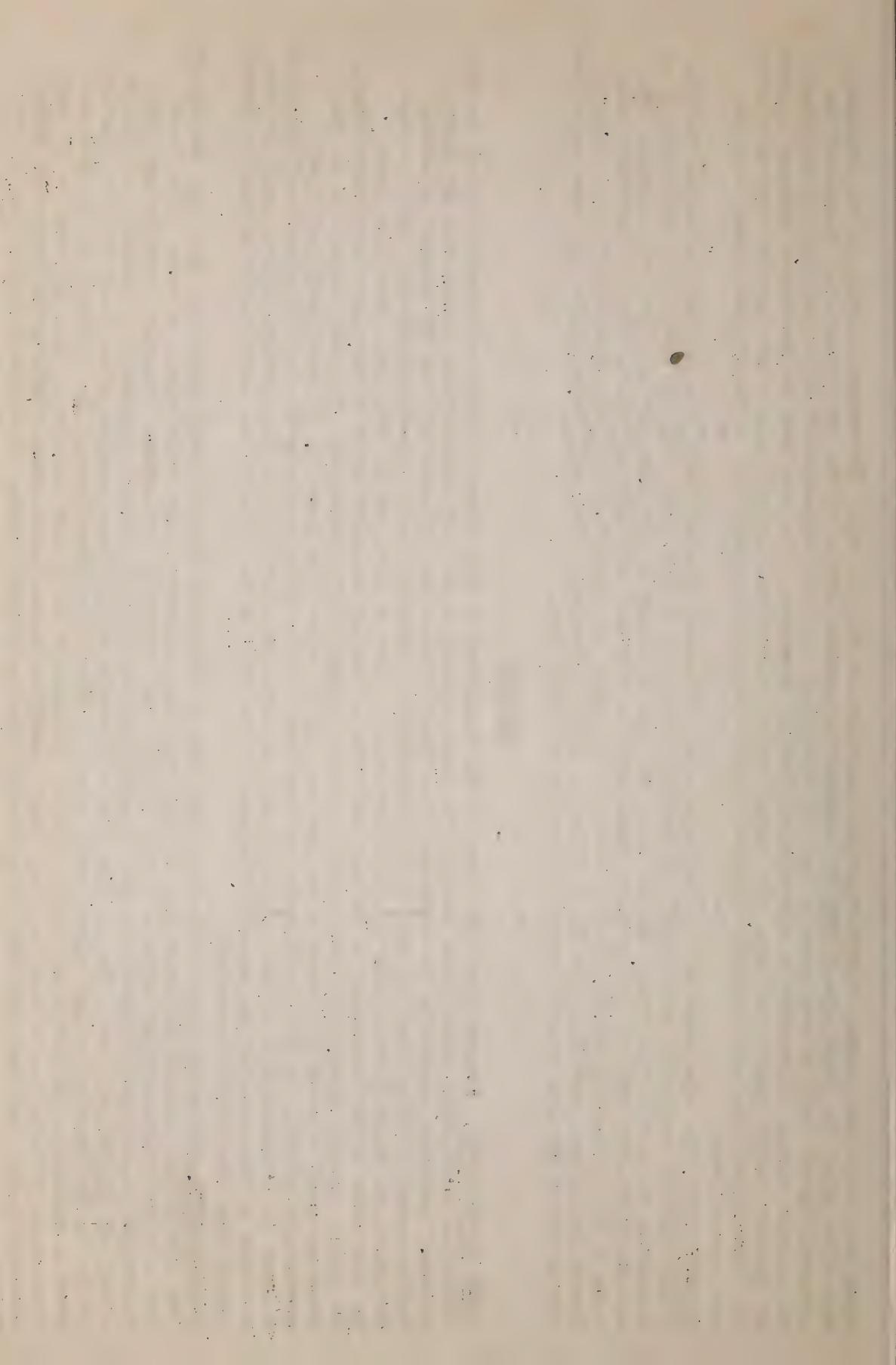
along this valley was normal or better and soil moisture now fair to good. The present storage in the principal reservoirs along the river exceeds 600,000 acre-feet as compared with about 400,000 a year ago. Because of the potential run-off held in deep snows at the high elevations over the headwaters of this stream and its tributaries the maximum storage is expected to approximate 1,500,000 acre-feet. The snow over the Sweetwater drainage is about 125 percent greater than a year ago. The coming run-off will be much greater than it was last year and well above the normal flow. The water content of the snow pack is nearly 20 inches which is the greatest amount over the past several years.

LARAMIE RIVER. The snow cover on this drainage is now 50 percent greater than a year ago and the outlook for the coming season's irrigation water supply is therefore very good at this time. The low snow is now melting which is increasing the flow of the river. At the State line the discharge is more than the past five year average. The expected April-July 1943 run-off of the Laramie River at Jelm will be 70,000 acre-feet. The soil moisture conditions of the irrigated areas are good to excellent and range and crops fair to good. Reservoir filling has continued during March with Wheatland No. 2 filled to 50,000 acre-feet. There will be available additional water for storage during the peak run-off period in late May and early June.

COLORADO

SOUTH PLATTE RIVER. Present snow conditions on the headwaters of this stream indicate a favorable outlook for the irrigation water supply this coming season. The water storage in the snow exceeds that of last year by about 15 percent. Reservoir storage in the upper and lower South Platte areas is practically at 100 percent capacity. Surplus water will flow down the river and its tributaries during the early summer peak run-off. Soil moisture throughout the South Platte valley and tributary areas is good to excellent at this time. For Clear Creek the snow cover on the headwaters is one-half more than a year ago and about equal to the past eight-year average. The coming run-off, April-July, 1943 at Golden, should exceed 200,000 acre-feet. The water content on the St. Vrain watershed is about 60 percent above last year and the run-off at Lyons for the April-July period will approximate 100,000. On the Big Thompson the snow cover is also above last year by about 40 percent and the run-off at Drake is estimated to be 85,000. On the Poudre watershed the water in the snow averaged about a half more than last year at this time and the expected discharge of the river at the mouth of the canon for the April-July period will be more than 225,000 acre-feet.

ARKANSAS RIVER. The water supply outlook for this coming irrigation season is very favorable. Although the run-off from snow is not expected to exceed that of last year full assurance in the water supply is taken in the fact that all principal reservoirs are now filled. In 1942 the storage in the Arkansas drainage, mountain and plain reservoirs, was the best in several years. However, at this time the storage aggregates 50 percent over 1942 or a total of 388,000 acre-feet. The new John Martin Reservoir on the river near Las Animas holds 50,000 acre-feet for use in the lower valley and certain areas along the river in western Kansas. The discharge of the Arkansas River at Salida for the period April-July, 1943 is estimated to be 300,000 acre-feet. Soil moisture in the irrigated areas of the valley is fair to good. March precipitation was below normal. Snow on the Purgatoire River watershed is the least recorded over the past seven years as of April first. In the lower part of the valley, Trinidad area, March precipitation was below normal. However, the soil moisture is fair to good. Spring crops are coming nicely. Model Reservoir is filled to near capacity.



MISSOURI AND ARKANSAS RIVER WATERSEEDS

Summary of Federal and State Cooperative Snow Surveys

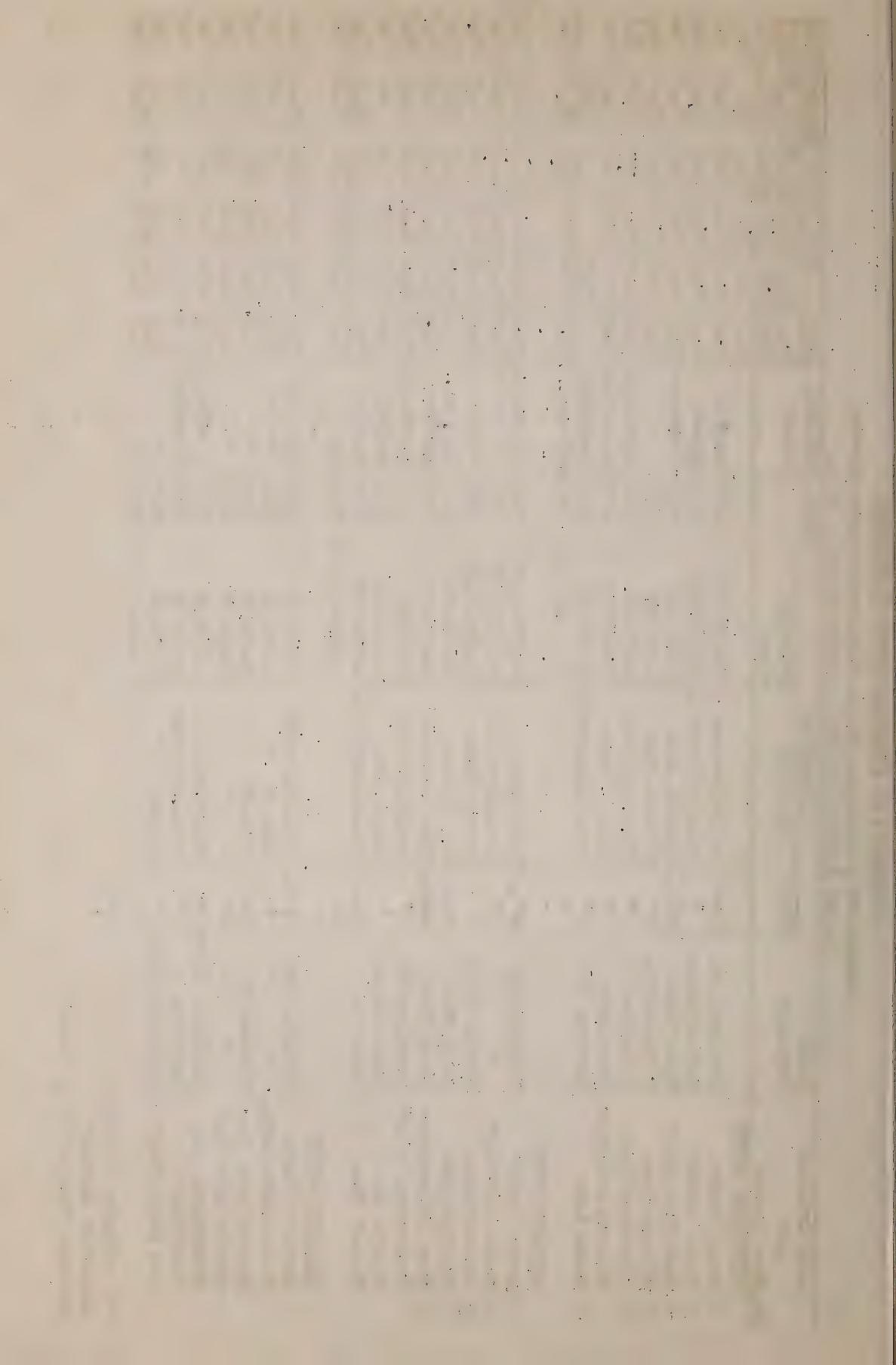
Issued April 10, 1943, at Fort Collins, Colo.

Main Drainage and No. Snow Course	Local Drainage	State	Locality	Descrip- tion	April 1 Snow Cover Measurements							
					Av. Water Content		Av. Water Depth		Av. Snow Depth			
					1942	1943	1942	1943	1942	1943		
JEFFERSON RIVER												
6 Camp Creek*	Red Rock Cr.	Idaho	6mi. N. Spencer	21-13N-36E	6800	Targhee	29.0	30.6	32.1	8.4	9.1	9.9
7 Moose Creek*	N.Fk. Big Hole	"	3mi. S. Gibbons P.	27-27N-21E	6200	Salmon	40.9	40.8	59.2	13.9	13.3	23.3
7 East Fork R. S.*	Rock Creek	Mont.	13mi. NE. Sulia	16-2N-17W	5400	Bitterroot	14.3	27.6	3.8	4.7	4.7	9.6
10 Gibbons Pass	N.Fk. Big Hole	"	Gibbons Pass	4-2S-19W	7100	"	55.8	56.9	78.5	20.5	21.6	28.9
30 Pestone Pass	Pestone Cr.	"	Pipestone Pass	11-1N-7W	7200	DeerLodge	18.7	22.4	24.2	5.0	5.4	6.5
Elkhorn Hot Spgs.	Wise River	"	8mi. N. Polaris	15-4S-12W	8450	Beaverhead	30.0	29.6	43.4	8.2	7.2	14.2
31 Storm Lake	Seymour Cr.	"	15mi. W. Anaconda	19-4N-13W	8100	DeerLodge	50.9	50.9	16.1	16.1	10.2	15.4
AVERAGE FOR DRAINAGE					31.0	32.4	44.2	44.2	10.0	10.0		
MADISON RIVER												
2 Astor Creek*	Firehole R.	Wyo.	Lewis Lake	44-3N110-6W	7700	Yel. Nat. P.	77.2	63.0	70.0	28.5%	21.1	50.5%
8 Lewis L. Divide*	"	"	3mi. S. Lewis L.	44-2N110-7W	7900	"	104.0	80.2	105.0	40.4%	28.6%	62.6%
11 Norris Basin	Gibbon River	Idaho	Norris Basin	44-3N110-7W	7500	"	28.6	26.9	44.3	8.8	6.3	15.6
3 Big Springs*	South Fork	Idaho	Big Springs	34-14N-4E	6500	Targhee	55.3	48.4	75.6	19.2	16.1	30.0
16 West Yellowstone	South Fork	Mont.	W. Yellowstone	34-13S-5E	6700	Gallatin	33.5	30.3	49.6	11.3	8.6	18.3
Twenty-one Mile*	Greyline Cr.	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	47.1	40.6	68.5	16.0	12.8	24.7
Hebgen Dam	Cabin Creek	"	22-11S-3E	6550	Gallatin	36.4	31.7	43.4	12.2	8.6	14.6	
Valley View	Denny Cr.	Idaho	5mi. E. Henry's L.	7-15N-44E	6500	Targhee	44.0	38.3	57.5	13.9	10.9	21.1
AVERAGE FOR DRAINAGE					53.3	45.0	78.0	78.0	14.1	14.1	29.7	
GALLATIN RIVER												
Devil's Slide	Eyalite Cr.	Mont.	20mi. S. Bozeman	14-5S-6E	8100	Gallatin	57.2	61.6	60.4	18.2	20.2	
Hood Meadow Extn.	"	"	14mi. "	22-4S-6E	6600	"	24.3	31.0	27.9	6.8	8.8	
Mystic Lake No. 1	Bozeman Cr.	"	12mi. SE.	31-3S-7E	6600	"	20.9	28.0	14.5	6.1	8.1	5.3
Mystic Lake No. 2	"	"	"	31-3S-7E	6600	"	21.5	28.0	15.3	5.9	7.5	5.1
Twenty-one Mile	Gallatin River	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	47.1	40.6	68.5	16.0	12.8	24.7
Ross Peak	Ross Cr.	"	12mi. N. Bozeman	10-1N-6E	7000	Gallatin	22.1	33.0	17.5	6.1	9.3	4.9
New World Trail	Gallatin River	"	8mi. SE.	13-3S-6E	7000	"	27.7	33.0	22.4	8.9	9.5	8.3
AVERAGE FOR DRAINAGE					31.5	36.5	32.4	32.4	9.7	9.7	11.0	

*On adjacent drainage

†Readings March 15

‡Average for period of record

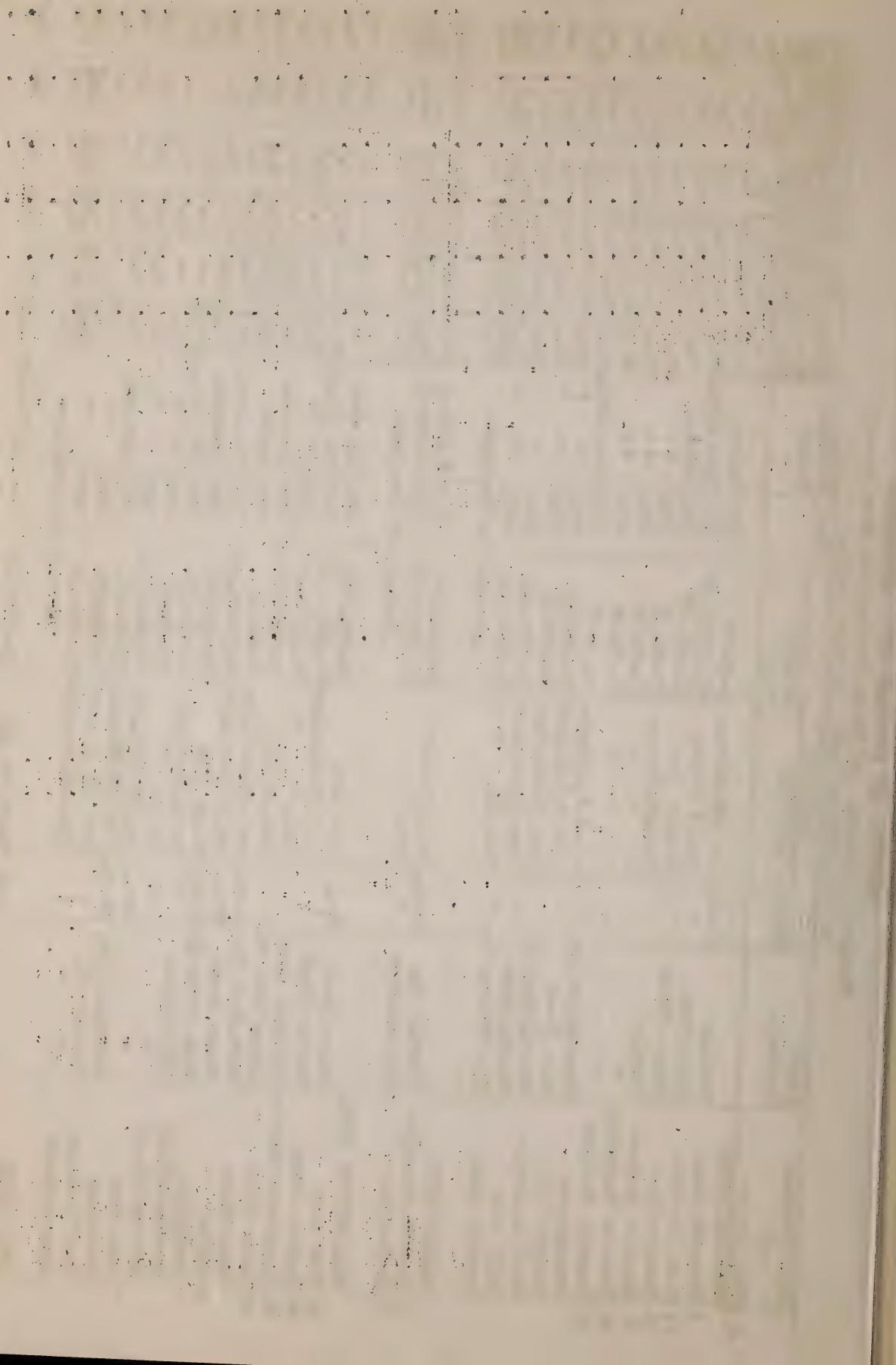


MISSOURI AND ARKANSAS RIVER WATERSHEDS

Summary of Federal and State Cooperative Snow Surveys

Issued April 10, 1943, at Fort Collins, Colo.

Main Drainage and No. Snow Course	Local Drainage	State	Locality	Description	Elev.	National Forest	Apr. 1		Snow Cover Measurements	
							Av.		Snow Depth	Av. Water Content
							Av.	©	1942	1943
MISSOURI RIVER							In.	In.	In.	In.
6 Chessman Res.	Tenmile	Mont.	11mi. SW. Helena	2-8N-5W	6200	Helena	15.4	17.1	20.4	4.4
11 Goat Mountain	South Fork	"	26mi. W. Gilman	47.5N112.9W	7000	Lewis & Clark	26.7	23.9	52.3	7.5
36 Temple Pass	Canyon Creek	"	Temple Pass	16-1N-7W	6900	Helena	28.6	27.0	45.6	5.6
41 Tenmile Cr. Lower	Tenmile	"	17mi. SW. Helena	13-8N-6W	6250	"	21.6	27.5	30.2	7.3
42 Tenmile Cr. Middle	"	"	"	13-8N-6W	6800	"	34.2	37.8	42.6	5.6
43 Tenmile Cr. Upper	"	"	"	19-8N-5W	8000	"	40.0	41.4	51.4	12.2
Grasshopper	Grasshopper Cr.	"	6mi. S.W. S. Spgs.	19-0N-8E	7000	Lewis & Clk.	20.4	26.4	24.4	5.0
King's Hill	Belt Creek	"	21mi. N.W.S. Spgs	35-13N-7E	7950	"	38.8	40.8	44.6	11.4
Orville Harris	Musselshell R.	"	12mi. E.W.S. Spgs	31-10N-9E	6500	"	20.1	23.7	21.5	5.0
Half Moon	Judith River	"	19mi. S. Lewiston	22-12N-18E	6000	"	24.7	32.9	24.3	8.5
Crystal Lake	Flat Willow Cr.	"	18mi. SE.	24-12N-17E	5500	"	36.8	47.1	34.5	11.6
MARIAS RIVER				Average for Drainage	27.9	31.4	35.6	8.1	16.1	10.5
Desert Mountain*	Cutbank Cr.	Mont.	4mi. S. Belton	24-31N-19W	5600	Flathead	35.4	31.6	53.8	11.7
20 Marias Pass	Two Medicine	"	Summit	48-3N113.4W	5250	Glacier NP	40.1	30.4	66.3	14.8
YELLOWSTONE RIVER				Average for Drainage	37.8	31.0	60.0	13.2	9.1	9.0
14 Dome Lake	Goose Creek	Wyo.	Dome Lake	11-53N-87W	8800	Big Horn	—	28.6	—	—
40 Lupine Creek	Lupine Creek	"	Dom. SE. Gardiner	44-9N110.6W	7300	Yel. Nat. P.	31.2	27.3	48.3	8.9
41 Blacktail Deer Cr	Blk. Tail Deer	"	11mi. " "	44-9N110.6W	7500	"	35.8	30.4	52.3	10.6
43 Lodge Pole	Lodge Pole Cr.	"	34mi. NW. Cody	32-56N-106W	8200	Shoshone	34.7	25.2	57.8	10.8
3 Canyon	W.Br. Rock Cr.	Mont.	10mi. W. Red Ldg.	2-8S-18E	7870	Custer	25.0	25.0	40.7	6.0
Cooke City	Tower Creek	Wyo.	8mi. N. Canyon Jct	44-7N110.5W	7750	Yel. Nat. P.	36.7	30.6	57.8	9.7
Crevise Mtn. #1	Soda Butte Cr.	Mont.	25-9S-14E	7400	Absaroka	26.5	20.6	43.2	7.4	—
7 Lake Camp	Yellowstone	"	6mi. E. Gardiner	26-9S-9E	8400	Yel. Nat. P.	34.9	—	46.8	10.1
Porcupine	"	"	7mi. E. " "	25-9S-9E	8200	"	34.7	—	45.9	9.9
Hell's Canyon	Porcupine Cr.	Mont.	3mi. NE. Fish. Br.	44-6N110.4W	7850	"	34.3	28.9	60.5	9.7
Independence	Boulder Cr.	"	12mi. NE. Wiltsall	10-4N-10E	6500	Absaroka	17.2	22.2	16.9	3.8
MILK RIVER	Rocky Boy	Mont.	26mi. SE. Livgtn	23-5S-12E	6000	"	8.0	13.5	10.5	2.9
*Adjacent Drainage	"	"	26mi. NE. Gardiner	22-7S-12E	8000	"	52.4	47.8	71.5	17.2
			Average for Drainage	15-28N-16E	30.2	27.2	46.0	8.7	13.9	15.5
			Off Forest	17.3	20.3	14.3	6.1	6.0		
			Bear Paw Mt.	—	—	—	—	—	—	
			@Average for period of record	15-28N-16E	—	—	—	—	—	



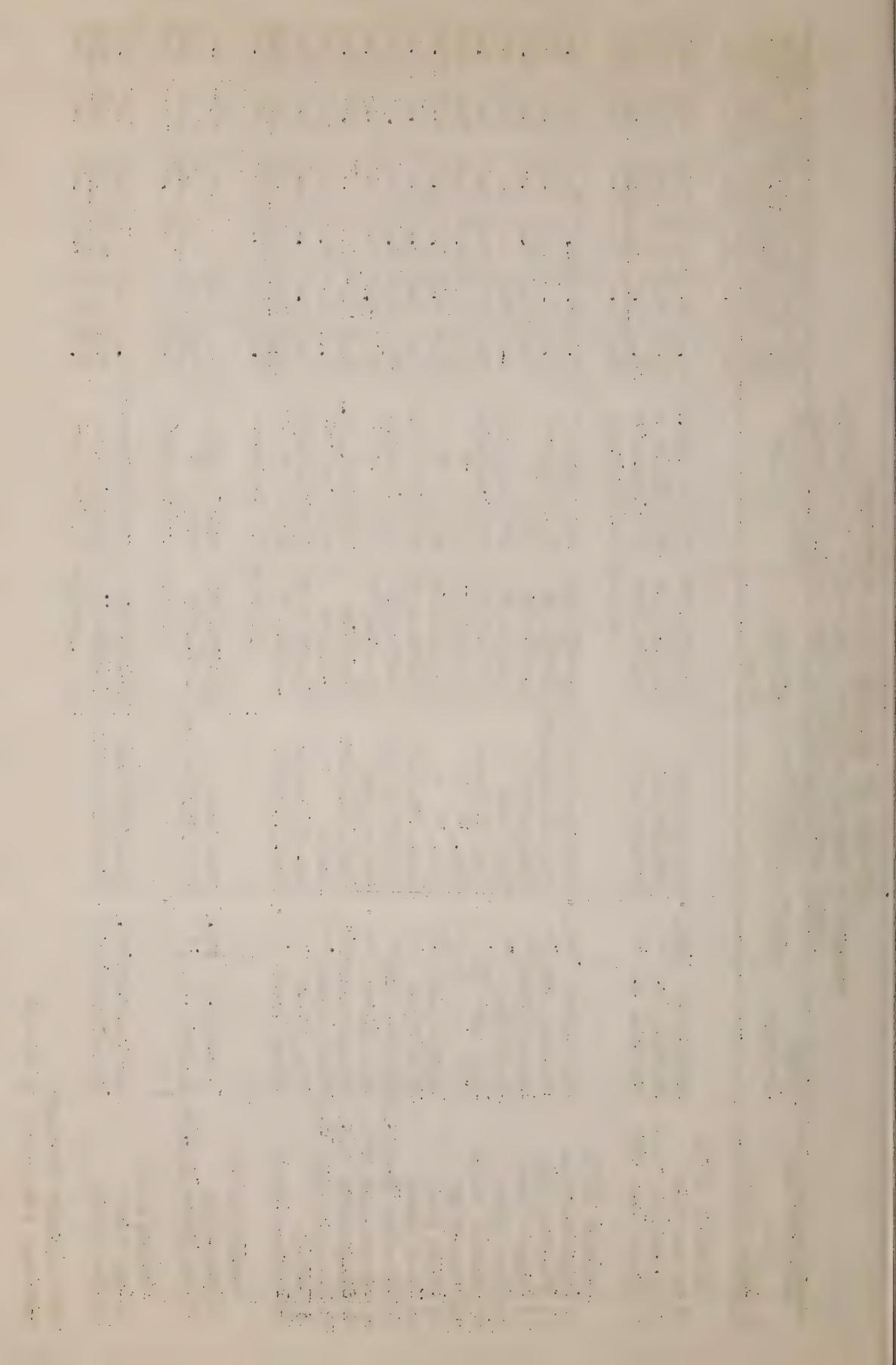
MISSOURI AND ARKANSAS RIVER WATERSEEDS

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Issued April 10, 1943, at Fort Collins, Colorado

Main Drainage and Snow Course No.	Local Drainage	State	Location Locality	Descrip- tion	Elev.	National Forest	Apr. 1		Snow Cover Measurements	
							Av. 1942		Av. 1943	
							Av. 1942	1943	Av. 1942	1943
SHOSHONE RIVER										
32 Sylvan Pass	Middle Cr.	Wyo.	Sylvan Pass	12-52N-110W	7100	Yel.Nat.P.	43.0	28.4	69.3	13.1
33 Up.Hardpan Basin	Hardpan Cr.	"	27mi.S.W.Cody	25-51N-106W	9500	Shoshone	41.6	41.6	61.6	10.6
50 Brooks Lake #3*	Shoshone R.	"	Brooks Lake	23-44N-110W	9200	Washakie	61.7	55.0	91.5	19.1
BIGHORN RIVER				Average for Drainage	48.8	41.7	74.1	14.3	74.1	9.8
12 Togwotee Pass	Wind River	Wyo.	Togwotee Pass	29-44N-110W	9600	Teton	75.0	64.0	100.0	26.6
13 Tensleep E.S.	Tensleep Cr.	"	15mi.N.E.Tensleep	30-49N-86W	8300	Bighorn	29.2	29.6	52.9	6.6
16 Ranger Creek	Ranger Creek	"	14mi.E.Shell	32-53N-88W	8800	"	33.3	32.1	40.3	7.4
14 Dome Lake*	Dome Lake	"	11-53N-87W	8800	Bighorn	"	28.6	--	--	6.4
45 Sawmill Glade	Popo Agie R.	"	3-31N-101W	8500	Washakie	23.3	22.5	30.5	5.8	5.2
46 Blue Ridge	"	"	23-31N-101W	9500	"	32.2	30.1	48.7	9.1	7.1
47 South Pass	L.Popo Agie R.	"	13-30N-101W	9000	"	39.4	34.7	57.2	11.2	9.3
48 Wood River	Wood River	"	28-46N-103W	8000	Shoshone	19.6	15.8	34.2	8.7	7.1
49 Sheridan Cr.R.S.#2	Sheridan Cr.	"	16mi.NW.Dubois	3-42N-109W	7500	Washakie	24.1	21.2	46.8	6.2
50 Brooks Lake #3	Brooks Lake	"	23-44N-110W	9200	"	61.7	55.0	91.5	19.1	17.1
51 St.Lawrence R.S.	St.Lawrence Cr.	"	26-1N-4W	9000	Shos.I.R.	31.9	21.4	43.2	8.7	8.7
52 Mosquito Park R.S.	Trout Creek	"	23-2S-3W	9500	"	37.6	26.9	48.3	11.0	11.9
53 DuNoir	Wind River	"	27-42N-108W	8750	Washakie	38.0	20.0	56.7	11.5	11.9
54 T-Cross Ranch	Horse Creek	"	1-43N-107W	8000	"	20.6	14.0	59.0	6.9	6.9
TONGUE RIVER			Average for Drainage	35.9	30.5	35.9	30.5	30.5	10.4	7.4
14 Dome Lake	Goose Cr.	Wyo.	Dome Lake	11-53N-87W	8800	Bighorn	--	28.6	--	--
17 Big Goose Cr.E.S.	E.Goose Cr.	"	20mi.S.W.Sheridan	4-53N-86W	7700	"	13.9	18.4	8.7	3.2
POWDER RIVER			Average for Drainage	13.9	18.4	8.7	3.2	3.2	4.1	1.6
30 Red Fork	Middle Fork Wyo.	"	23mi.W.Kaycee	18-43N-85W	7500	Off Forest	25.9	28.0	32.3	6.2
31 Sour Dough	Sour Dough Cr.	"	10mi.W.Klondike	17-49N-84W	8500	Bighorn	25.5	31.2	35.6	5.4
			Average for Drainage	25.7	29.6	34.0	25.7	25.7	6.9	1.6

*On adjacent drainage
**Average for period of record



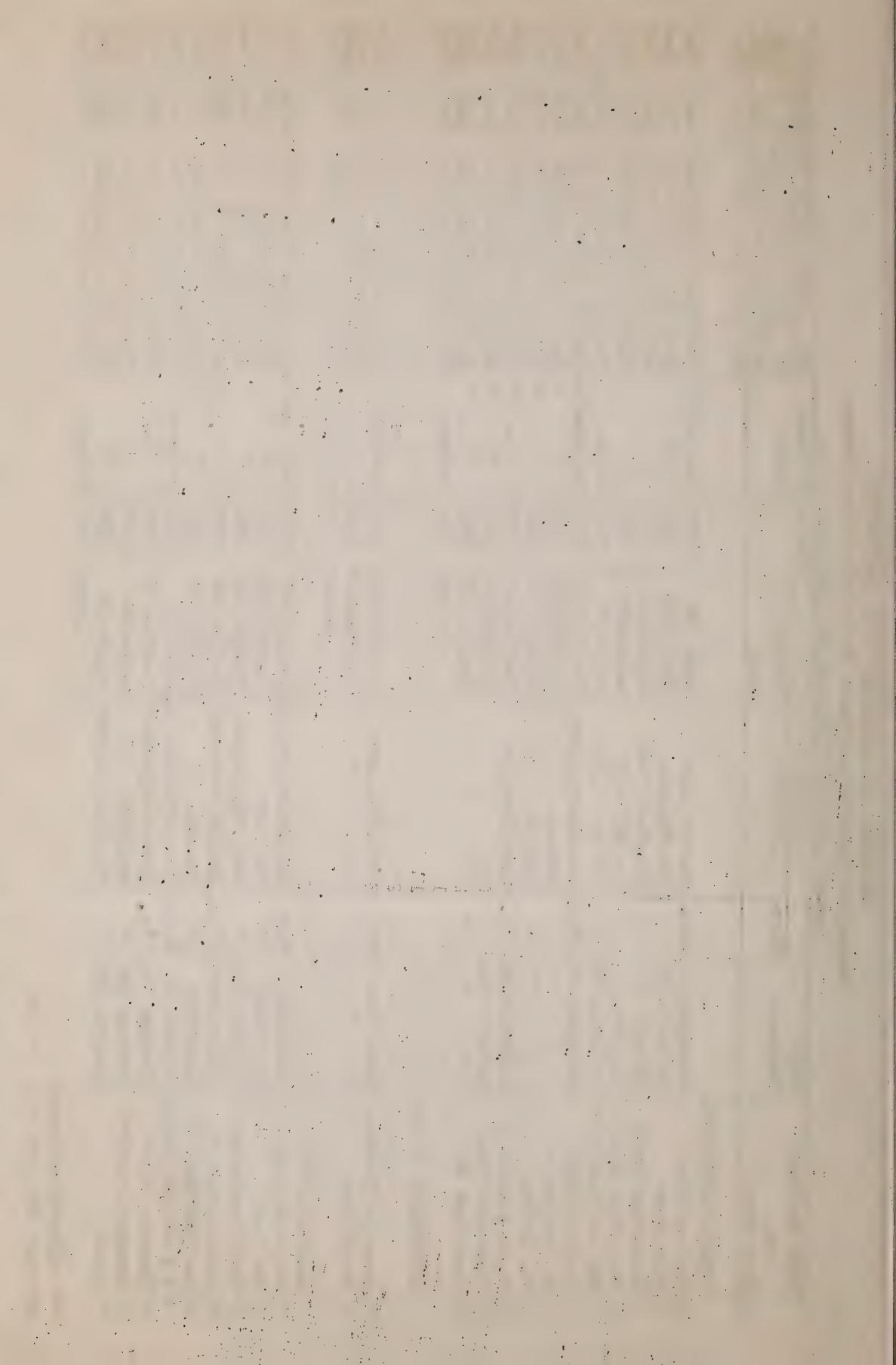
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					Forest		Av. Depth		Av. Water Content		Forest		Av. Depth		Av. Water Content	
					Av. @ 1942	Av. @ 1943	Av. @ 1942	Av. @ 1943	Av. @ 1942	Av. @ 1943	Av. @ 1942	Av. @ 1943	Av. @ 1942	Av. @ 1943	Av. @ 1942	Av. @ 1943
1 Cameron Pass	Michigan Cr. Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	61.2	55.1	53.4	21.0	18.6	20.3	In.	In.	In.	In.	In.
7 Park View	Illinois Cr.	7 mi. SE. Bend	24-5N-78W	9200	Routt	34.2	34.3	29.7	10.6	9.7	6.9	In.	In.	In.	In.	In.
8 Columbine Lodge	Grizzly Cr.	Hbt. Hars Pass	21-5N-82W	9300	"	64.4	64.5	72.0	22.2	20.5	26.9	In.	In.	In.	In.	In.
51 Big Creek Lake	Big Creek	5 mi. SW. Pearl	9-11N-82W	9000	"	35.2	33.5	39.5	10.6	14.1	11.9	In.	In.	In.	In.	In.
62 Willow Creek P.*	Illinois Cr.	Willow Cr. Pass	1-1N-78W	9500	Arapaho	43.3	43.7	41.0	12.8	11.8	11.0	In.	In.	In.	In.	In.
7 Bottle Creek	Encampment Cr. Wyo.	7 mi. SW. Encampmt	24-14N-85W	8200	Medicine Bow	43.7	40.1	44.8	14.4	10.6	14.9	In.	In.	In.	In.	In.
8 Webber Spring	"	"	10mi. S.	9000	"	56.1	50.9	57.2	19.0	14.1	20.5	In.	In.	In.	In.	In.
9 Old Battle	"	"	12mi. N.	9800	"	85.3	82.8	89.5	30.7	27.6	34.9	In.	In.	In.	In.	In.
37 North French Cr.	N. French Cr.	Cent/Saratoga	27-16N-80W	10200	"	79.7	74.0	87.1	31.0	25.7	39.4	In.	In.	In.	In.	In.
38 N. Barrett Cr. #2	Barrett Cr.	"	30-16N-80W	9400	"	60.5	53.7	60.1	20.6	15.1	21.9	In.	In.	In.	In.	In.
39 Ryan Park #2	"	"	34-16N-81W	8400	"	37.8	40.0	32.8	11.3	11.5	10.0	In.	In.	In.	In.	In.
SWEETWATER RIVER					Average for Drainage						54.7					
29 Grannier Meadows	Rock Creek Wyo.	20mi. SW. Lander	19-30N-100W	9000	Washakie	39.9	36.4	57.0	10.7	8.8	19.9	In.	In.	In.	In.	In.
47 South Pass	"	19mi. "	13-30N-101W	9000	Average for Drainage	39.4	34.7	57.2	11.2	8.7	19.9	In.	In.	In.	In.	In.
LARAMIE RIVER					39.6						35.6					
3 Brooklyn Lake	Nash Fork Wyo.	7mi. NW. Centennial	1-16N-79W	10200	Medicine Bow	59.6	51.0	67.0	20.9	17.2	27.7	In.	In.	In.	In.	In.
11 Fox Park	Fox Creek	21-13N-78W	9200	"	31.5	30.9	29.1	9.4	8.0	8.8	In.	In.	In.	In.	In.	
34 Pole Mountain #2*	Soldier Cr.	10mi. SE. Laramie	35-15N-72W	8700	"	12.8	19.4	3.9	5.2	1.1	1.1	In.	In.	In.	In.	In.
35 Libby Lodge #2	Libby Creek	3mi. NW. Centennial	29-16N-78W	8700	"	27.4	25.8	34.3	8.2	6.9	13.2	In.	In.	In.	In.	In.
36 Hairpin Turn #2	Nash Fork	5mi. NW.	24-16N-79W	9500	"	36.1	29.3	48.0	10.8	8.6	16.5	In.	In.	In.	In.	In.
4 W.Port G-P Tunnel	Laramie R. Colo.	4mi. N. Chambers I.	7-8N-75W	8600	Roosevelt	30.7	25.0	37.6	9.4	6.3	11.7	In.	In.	In.	In.	In.
50 Deadman Hill*	Deadman Cr.	10mi. W.R. Feather	26-10N-75W	10200	"	45.6	42.3	57.9	13.4	10.5	18.7	In.	In.	In.	In.	In.
71 Deadman Hill #2*	Deadman Cr.	8mi. SW. "	6-9N-74W	10200	"	38.2	34.6	49.0	11.0	9.0	15.7	In.	In.	In.	In.	In.
88 Roach	LaGarde Cr.	8mi. NW. Glendevay	5-10N-77W	9800	"	55.4	57.8	62.0	18.5	18.3	22.0	In.	In.	In.	In.	In.
Average for Drainage					37.5						35.1					

*On adjacent drainage

@Average for period of record

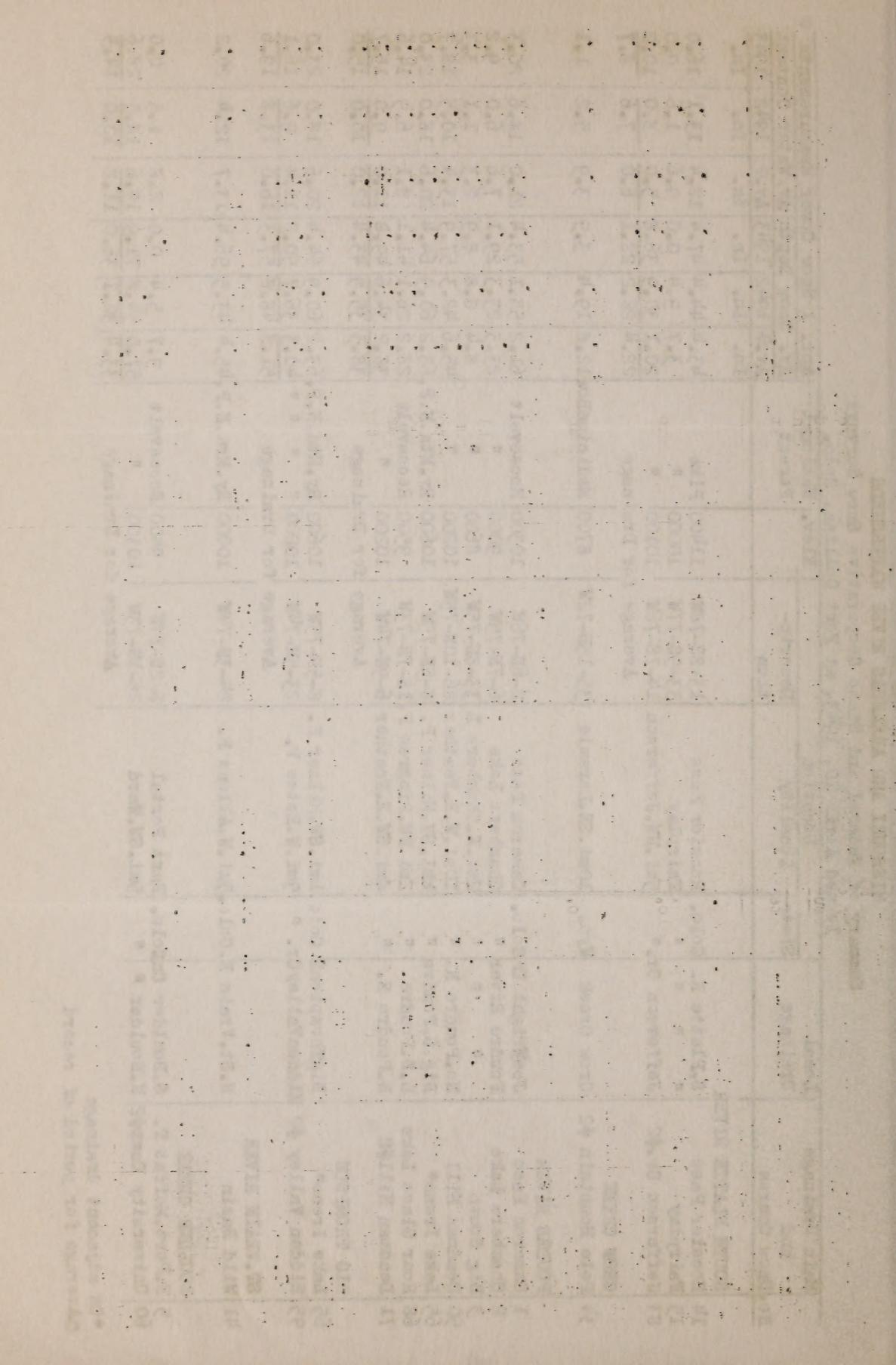


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				Forest		In. In.		Av. Snow Depth		Av. Water Content	
				Av. @ 1942	1943	Av. @ 1942	1943	In. In.	In. In.	In. In.	In. In.
SOUTH PLATTE RIVER	S. Platte R. n n	Colo. Hoosier Pass Fairplay 5mi. N.W. Jefferson Cr. n	13-8S-78W 33-9S-77W 14-7S-76W Average for Drainage	11400	Pike " " " "	47.4	12.4	13.1	16.0	1.6	0.0
14 Hoosier Pass	n			3.7	9.4	0.0	0.6	1.6	0.6	0.0	0.0
15 Fairplay	n			20.1	30.9	36.8	5.0	8.0	10.2	10.2	8.7
83 Jefferson Cr. #2	Jefferson Cr. n			22.4	28.2	28.1	6.0	7.6	7.6	7.6	8.7
CROW CREEK	Pole Mountain #2	Crow Creek Wyo.	10mi. SE. Laramie	8700	Medicine Bow	12.8	19.4	3.9	3.9	5.2	1.1
POUDRE RIVER	Joe Wright Cr. Colo.	Cameron Pass Chambers Lake 2mi. E. Chambers L	2-6N-76W 6-7N-75W 33-8N-75W 10mi. W.R. Featherer	10300	Roosevelt " " " "	55.1	53.4	21.0	18.6	20.3	20.3
1 Cameron Pass	Poudre River n			23.3	23.3	29.1	7.6	6.0	6.0	9.2	9.2
2 Chambers Lake	" n			8.4	8.4	8.9	2.3	1.1	1.1	3.3	3.3
3 Big South	" n			45.6	42.3	57.9	13.4	10.5	10.5	18.7	18.7
50 Deadman Hill	No. Poudre R. n			10200	" " " "	63.2	60.9	64.4	20.6	18.0	23.0
65 Lake Irene*	Big S. Milner P. n			10600	Ry. Mtn. N.P.	63.2	60.9	41.1	8.1	6.9	14.6
68 Hour Glass Lake	L.S. Poudre n			9500	Roosevelt	28.2	26.1	34.6	49.0	11.0	9.0
71 Deadman Hill #2	N. Poudre R. n		Average for Drainage	10200	" " " "	38.2	35.9	43.4	12.0	10.0	15.0
BIG THOMPSON	Big Thompson R. Colo.	1mi. SW. Milner P. 9mi. W. Estes P.	8-5N-75W 23-5N-74W Average for Drainage	10600	Ry. Mtn. N.P.	63.2	60.9	64.4	20.6	18.0	23.0
65 Lake Irene*	Hidden Valley Cr. n			10200	" " " "	40.3	36.7	50.2	11.4	9.6	16.1
95 Hidden Valley #2				51.8	48.8	57.3	16.0	16.0	16.0	13.8	19.6
ST. VRAIN RIVER	Wild Basin N. St. Vrain R. Colo.	5mi. W. Allens P.	24-3N-74W	10000	Ry. Mtn. N.P.	45.4	43.5	56.4	13.7	12.4	20.2
BOULDER CREEK	S. Boulder Cr. Colo.	East Portal 5mi. SW. Ward	2-2S-74W 28-1N-73W Average for Drainage	9400	Roosevelt	9.7	5.4	0.0	2.8	1.5	0.0
5 E. Port. Moffat T.	n			10300	" " " "	57.0	54.8	71.9	19.6	18.5	28.6
60 University Camp #2	N. Boulder n			33.4	30.1	36.0	11.2	36.0	36.0	11.2	14.3

*On adjacent drainage

©Average for period of record



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						National Forest		Av. Snow Depth Av. @ 1942 In. In.		Av. Water Content Av. @ 1942 In. In.		
						Av. @ 1943	Av. @ 1943	Av. @ 1943	Av. @ 1943	Av. @ 1942	1942 In. In.	
CLEAR CREEK												
61 Loveland Pass #2	Clear Creek	Colo.	10mi. W. Georgetown	27-4S-76W	10100	Arapaho	46.1	47.5	51.2	13.5	13.9	17.9
ARKANSAS RIVER												
19 Tennessee Pass	Tennessee Cr	Colo.	Tennessee Pass	21-4S-80W	10200	Cochetopa	36.0	40.1	31.3	9.4	10.5	11.0
21 Twin Lakes Tun.	Lake Creek	"	9mi. W. Twin Lakes	22-11S-82W	10500	"	38.0	37.1	39.7	10.1	10.4	12.1
42 Marshall Creek*	Poncha Cr.	"	Marshall Pass	24-48N-6E	10800	"	46.9	46.2	47.8	13.9	11.9	15.0
43 Poncha Creek	"	"	"	19-48N-7E	10500	"	38.1	37.2	40.9	11.8	10.8	13.3
72 Whiskey Creek #2	Whiskey Cr.	"	Whiskey Cr. Pass	37-2N105-2W	10300	Maxwell Gr.	25.2	19.3	11.3	7.4	6.5	3.8
74 LaVeta Pass #2*	Cuchara Cr.	"	LaVeta Pass	22-28S-70W	9300	San CristGr	25.5	27.5	19.3	7.4	7.2	4.7
78 Four Mile Park #2	Lake Creek	"	3mi. SW. Twin L.	23-11S-81W	9700	Cochetopa	10.2	17.1	11.2	2.8	4.7	3.1
79 Fremont Pass #2	E. Fork Ark. R.	"	Fremont Pass	2-8S-79W	11400	Arapaho	53.4	57.5	61.8	16.7	15.6	20.1
81 Blue Lakes #2	Cuchara Cr.	"	15mi. SW. LaVeta	30-31S-69W	10000	San Isabel	21.2	22.0	10.1	5.6	5.9	2.7
92 Monarch Pass	S. Fork Ark. R.	"	Monarch Pass	16-49N-6E	10500	Cochetopa	60.4	61.0	59.4	19.7	19.0	20.8
						Average for Drainage	35.5	36.5	33.3	10.5	10.2	10.7

*On adjacent drainage

@Average for period of record

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TOOL WORKS

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